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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/769,688

01/25/2001

Takashi Mochizuki

P/647-136

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11/28/2005

DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
1177 AVENUE OF THE AMERICAS (6TH AVENUE)
41 ST FL.
NEW YORK, NY 10036-2714

EXAMINER

KUMAR, PANKAJ

ART UNIT

PAPER NUMBER

2631

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/769,688

Applicant(s)

MOCHIZUKI, TAKASHI

Examiner

Pankaj Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 4 is/are allowed.
- 6) ☒ Claim(s) 1 and 7 is/are rejected.
- 7) ☒ Claim(s) 2, 5, 6 and 8-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Response to Amendment

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- ~~3.~~ Claims 1, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maniwa USPN 6,275,103 in view of Akiya USPN 5,752,171 and Beamish USPN 6,865,216. Here is how the references teach the claims:

4. As per claim 1, Maniwa teaches adjustable filter means for reducing leakage power outside a transmission signal band (Maniwa col. 1 lines 13-15; col. 7 line 54 to col. 8 line 4: subtracting portion of fft, two tones, alpha and beta coefficients varying all relate to filtering and adjustable filtering), said adjustable filter means having a first attenuation amount (Maniwa figs. 11, 12, 13: 25 affecting attenuation amount in 50; if this is not sufficient, then it would be obvious as explained below) more than a predetermined amount (not in Maniwa but would be obvious as explained below) and a second attenuation amount (Maniwa figs. 11, 12, 13: 24 affecting 23; if this is not sufficient, then it would be obvious as explained below) not more than the predetermined amount selectively set (not in Maniwa but would be obvious as explained

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below) in a range higher than a transmission signal band (Maniwa figs. 7, 8 shows what happens higher than the transmission band when attenuation adjustment is made); modulation means for modulating the transmission signal output from said filter means (not in Maniwa but would be obvious as explained below); and control means for setting one of the first and second attenuation amounts (not in Maniwa but would be obvious as explained below) in said adjustable filter means in accordance with a use situation of a band adjacent to the transmission signal band (Maniwa col. 1 lines 13-15).

5. If Maniwa does not teach having a first attenuation amount, then Akiya 5752171 teaches having a first attenuation amount (Akiya fig. 1: normal setting data affects attenuation). Maniwa does not teach having a first attenuation amount more than a predetermined amount. Akiya teaches having a first attenuation amount more than a predetermined amount (Akiya fig. 1: normal setting data is more than the predetermined amount for power down setting data). If Maniwa does not teach having a second attenuation amount, then Akiya teaches having a second attenuation amount (Akiya fig. 1: power down setting affects attenuation). Maniwa does not teach having a second attenuation amount not more than the predetermined amount selectively set. Akiya teaches having a second attenuation amount not more than the predetermined amount selectively set (Akiya fig. 1: power down setting data cannot be more than the amount for power down; 112 select the switch position). Maniwa does not teach control means for setting one of the first and second attenuation amounts. Akiya teaches control means for setting one of the first and second attenuation amounts (Akiya fig. 1: left signal into 112 controls the setting of the 112 switch). If Maniwa does not teach adjusting, then Akiya teaches adjusting with the switch.

Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was

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made, to arrive at the limitations as recited by the instant claims, because the combined teaching of Maniwa with Akiya suggest the limitations as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Maniwa with Akiya because Maniwa suggests adjusting coefficients (Maniwa alpha, beta) for use in restricting a frequency band (Maniwa figs. 7,8) and hence adjusting attenuation (something broad) in general and Akiya suggests the beneficial use of adjusting attenuation by switching between two sets of values such as providing extra gain to compensate for power reduction (Akiya col. 1 lines 37-43) in the analogous art of attenuation.

6. Maniwa does not teach modulation means for modulating the transmission signal output from said filter means. Beamish teaches modulation means for modulating (Beamish fig. 4: 418, 416, 414) the transmission signal output from said filter means (Beamish fig. 4: 412). Thus, it would have been obvious, to one of ordinary skill in the art, at time the invention was made, to arrive at the modulation means for modulating the transmission signal output from said filter means as recited by the instant claims, because the combined teaching of Maniwa with Beamish suggest modulation means for modulating the transmission signal output from said filter means as recited by the instant claims. Furthermore, one of ordinary skill in the art, would have been motivated to combine the teachings of Maniwa with Beamish because Maniwa suggests transmission, predistortion, and adjusting coefficients (Maniwa alpha, beta) for use in restricting a frequency band (Maniwa figs. 7,8) and hence filtering (something broad) in general and Beamish suggests the beneficial use of modulating and filtering for transmission such as removing higher order harmonics in order to avoid transmitting out of band energy (Beamish col. 2 lines 49-52) in the analogous art of transmission.

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7. As per claim 7: An apparatus according to claim 1, wherein said filter means, modulation means, and control means are arranged in one of a mobile station and a base station of a mobile communication system (Maniwa col. 1 line 8; col. 2 lines 26-27: mobile communication and the like).

Allowable Subject Matter

- 8. Claims 3-4 are allowed. See prior action(s) for details.
- 9. Claims 2, 5, 6, 8-10 are objected.


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Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (571) 272-3011. The examiner can normally be reached on Mon, Tues, Thurs and Fri after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Pankaj Kumar
Patent Examiner
Art Unit 2631

PK